WHAT IS CLAIMED IS:

1.   A computer system comprising:

a data file that has entries each designed to be able to hold data;

an advanced mapping file that has entries each designed to be able to hold an entry address in said data file;

a completed mapping file that has entries each designed to be able to hold an entry address in said data file;

a state-modification queue that has entries each designed to be able to hold substance of a modification made on said advanced mapping file;

means for holding statuses of operations provided in respective correspondence with said entries of said state-modification queue; and

a means for performing issued operations out of order;

wherein making a modification on said advanced mapping file, entering the substance of said modification into said state-modification queue, and issuing operations combined with said modification on said advanced mapping file are each to be done in one cycle;

wherein each issued operation is to be executed out of order, and, on termination of each operation, corresponding part of said means for holding statuses of operations is to be altered accordingly; and

wherein if all of the operations combined with the modification on said advanced mapping file indicated by the substance in the head entry of said state-modification queue are shown to be terminated

normally by the corresponding means for holding statuses of operations, a modification according with said substance in said head entry of said state-modification queue is to be made on said completed mapping file, and said head entry of said state-modification queue is to be dequeued.

2. The computer system according to claim 1;

wherein said advanced mapping file and said completed mapping file are each to hold stack elements from the top downward in order of entry address.

3. The computer system according to claim 1;

wherein said advanced mapping file and said completed mapping file are each to be accessed by entry addresses.